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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/772,275

02/06/2004

Aleksey Vladimirovich Afanasiev

115/3-CIP

4450

7590

07/03/2007

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EXAMINER

KOVALICK, VINCENT E

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/772,275

Applicant(s)

AFANASIEV, ALEKSEY  
VLADIMIROVICH

Examiner

Vincent E. Kovalick

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 March 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 7-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. This Office Action is in response to Applicant's Amendment dated March 29, 2007 in response to USPTO Office Action dated September 29, 2006.

The amendments to claims 1 and 10 and the cancellation of claims 5-6 and 19 have been noted and entered in the record.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7-9 are indicated as being dependent on cancelled claim 5, Examiner assumes this is an oversight by the Applicant and for the purposes of this action further assumes that the intent of the Applicant is to have claims 7-9 dependent on independent claim 1. For purposes of this action claims 7-9 are treated as being dependent on independent claim 1.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1, 4, 7-10 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levy (USP 5,612,690) taken with Kato et al (USP 5,861,821)

Relative to claims 1 and 10, Levy **teaches** a compact keypad system and method (col. 2, lines 26-67 and col. 3, lines 1-42); Levy further **teaches** a compact telephone (input device of an electronic transmission apparatus) having a keyboard comprising keys adapted to input numerals from "0" to "9" and some alphabetical characters, and wherein the keyboard is adapted to input remaining alphabetical characters by a combination stroke of more than one keys (col. 1, lines 11-21; col. 4, lines 48-67 and Figs. 1 and 7b);

Levy **does not teach** wherein the keyboard has at most four rows of spaced keys, and the keyboard surface comprises areas on which the user's finger shall be placed when stroking a combination of keys, wherein each of these areas corresponds to the character to be inputted and, in a space between the keys on the panel of the input device, is marked with its corresponding character.

Kato **teaches** a keyboard-type input apparatus (col. 6, lines 40-67 and col. 7, lines 1-44); Kato further **teaches** wherein the keyboard has at most four rows of spaced keys, and the keyboard surface comprises areas on which the user's finger shall be placed when stroking a combination of keys, wherein each of these areas corresponds to the character to be inputted and, in a space between the keys on the panel of the input device, is marked with its corresponding character (col. 24, lines 42-50 and Figs. 13 and 63).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Levy the feature as taught by Kato in order to optimize the number of keys included on the keyboard, in turn expanding the number of functions that can be introduced with a larger number of keys. Though Kato shows only annotating the space between rows 3 and 4 (Fig. 13) allowing, for example, keys 111 and 112 to be pressed to yield the character shown, the concept can be expanded to introduce adding a larger number of functions by annotating space between a large number of keys and key combinations on the said keyboard.

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Regarding claims 4 and 12, Levy further **teaches** the mobile telephone wherein the keys are sized and configured in such a way that the user can stroke four adjacent keys with one finger (col. 4, lines 48-67; col. 5, lines 57-61 and Fig. 1).

Relative to claim 13, Levy further **teaches** the mobile telephone wherein the keyboard surface comprises areas on which the user's finger shall be place when stroking a key or combination of keys, wherein each of these keyboard surface areas corresponds to at lease one character to be inputted. (col. 4, lines 57-63 and Fig. 1).

As to claim 14, Levy further **teaches** the mobile telephone wherein each said area is marked with its corresponding character (Fig. 7b).

Relative to claim 7 and 15, Levy further **teaches** the mobile telephone wherein the keyboard has such a layout that a plurality of combination strokes in which one common key is used, inputs a corresponding plurality characters situated in the alphabet one after another (Fig. 7b).

Regarding claims 8 and 17, Levy further **teaches** the mobile telephone wherein the keyboard has such a layout and configuration that the arrangement of said keyboard surface areas corresponds topologically to the arrangement of character keys of QWERTY keyboard (col. 5, lines 65-67 and Fig. 9).

Regarding claims 9 and 18, Levy further **teaches** the mobile telephone wherein the keyboard has such a layout and configuration that the arrangement of said keyboard surface areas is the same as the arrangement of character keys of QWERTY keyboard (col. 5, lines 65-67 and Fig. 9).

As to claim 16, Levy further **teaches** the mobile telephone wherein said keyboard surface areas are arranged in the alphabetical order (Fig. 7a). It being understood the Fig 7a shows the keyboard surface area arranged in alphabetical order with the exception of two final letters

"Y and Z"

6. Claims 2-3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levy as applied to claim 1 and 10 respectively in item 3 hereinabove, and further in view of Lapeyre (USP 4,891,777).

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Regarding claims 2-3 and 11 Levy **does not specifically teach** the input device wherein the keys are sized and configured in such a way that the user can stroke two adjacent keys or three adjacent keys with one finger.

Lapeyre **teaches** a single hand keyboard arrays providing alphanumeric capabilities from twelve keys (col. 2, lines 18-68); Lapeyre further **teaches** the input device wherein the keys are sized and configured in such a way that the user can stroke two adjacent keys or three adjacent keys with one finger (Abstract).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide the device as taught by Levy the feature as taught by Lapeyre in order to provide the capability to utilize two or three keys being stroked simultaneously to increase the number of character that can be initiated.

#### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S Patent No.	5,790,103	Willner
U. S. Patent No.	4,994,992	Lapeyre
U. S. Patent No.	4,400,593	Kunz
Pub. No.	US 2001/0048378	Horie

***Final Action***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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***To Respond***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 571-272-7669. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Vincent E. Kovalick  
June 18, 2007



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